SONY

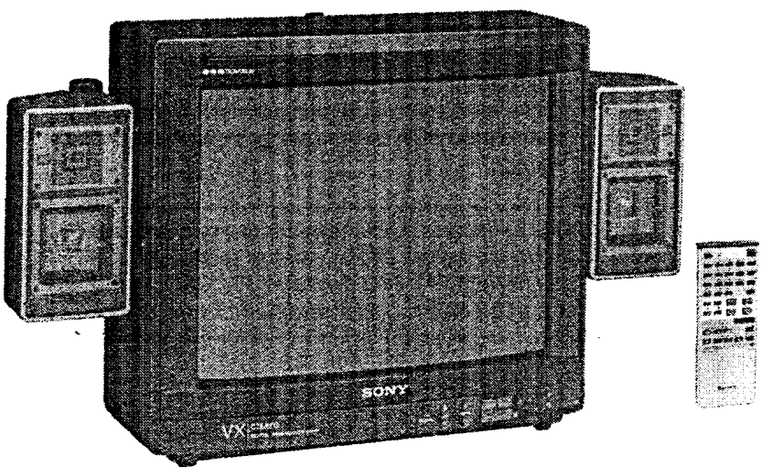
4-482-282-52 (1)

TRINITRON® COLOR TV

KV-21VX1P/27VX1P/27VX1PH

OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly and retain it for future reference.



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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Dangerously high voltages are present inside the unit. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

Safety

- Operate the unit only on 110–240 V AC, 50/60 Hz.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the unit in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

Retain the original carton and packing materials for safe transport of this unit in the future.

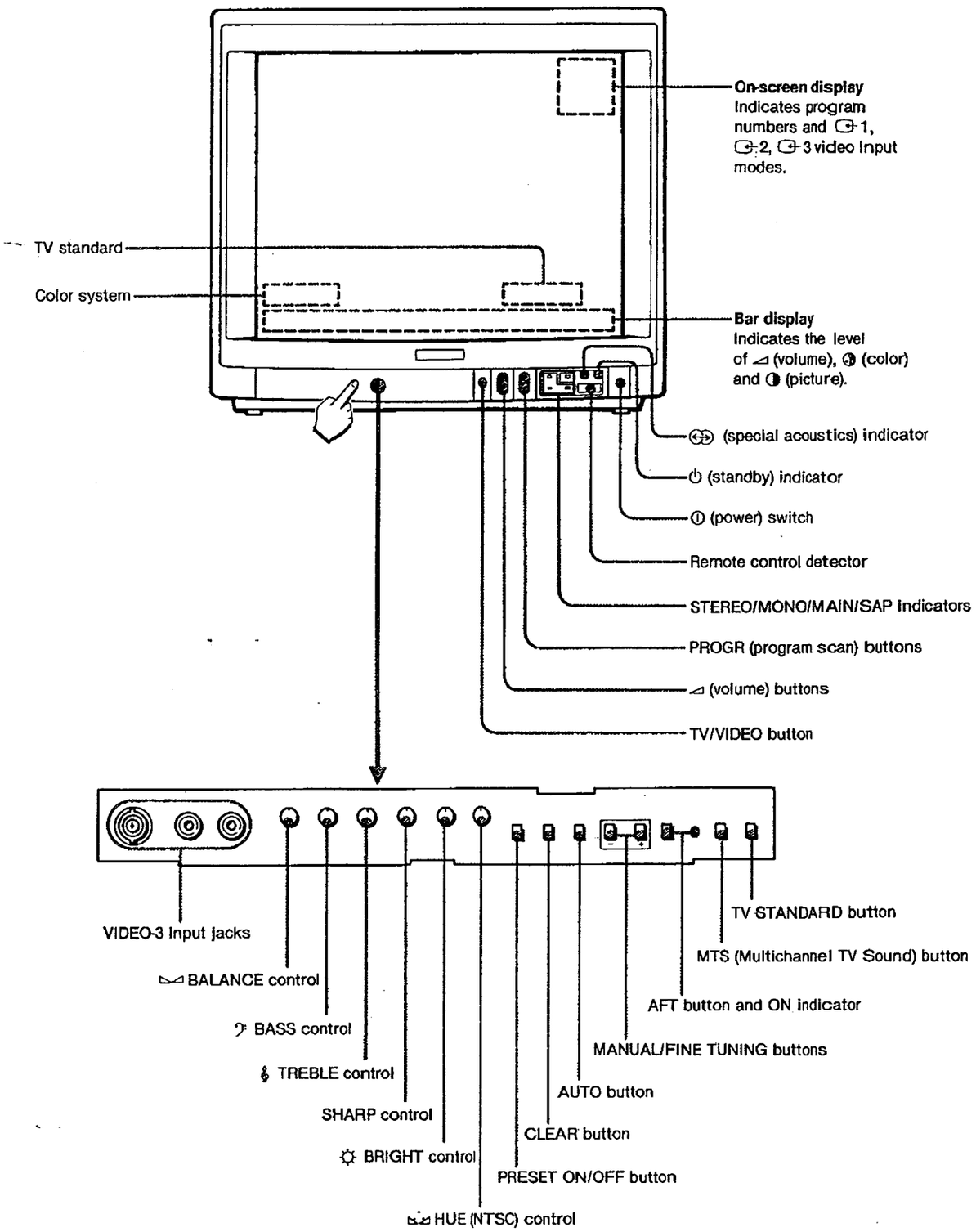
FEATURES

- Trinitron color television with a multi-function Remote Commander
- New Black-tinted Trinitron tube absorbs most ambient light and remarkably improves picture contrast.
- New PanFocus™ Gun delivers clear and crisp images with remarkably improved sharpness all the way to the screen's edges and corners.
- Capable of receiving a combination of 3 TV standards and 2 color systems.
- Capable of receiving American MTS (Multichannel TV Sound) broadcasts.
- Magnetically shielded detachable speakers capable of reproducing stereo video sources.
- Three video/audio inputs and one video/audio output enable easy VCR connection for tape playback and editing.

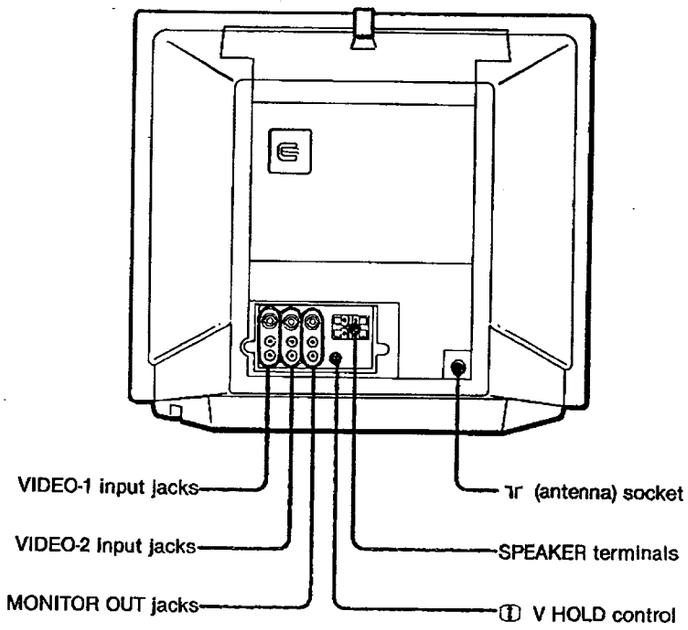
This TV receiver is designed for use in U.S. Bases in Europe to receive TV programs or to monitor VCR programs in PAL B/G (European PAL), PAL I (UK PAL) and NTSC 3.58 M (American NTSC) TV systems.

LOCATION OF CONTROLS

Front



Rear

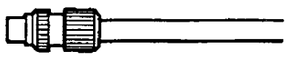


SET-UP

ANTENNA CONNECTION

To connect a VHF antenna or a combination VHF/UHF antenna—round 75-ohm coaxial cable

1 Attach the antenna end to an IEC antenna connector (commercially available).

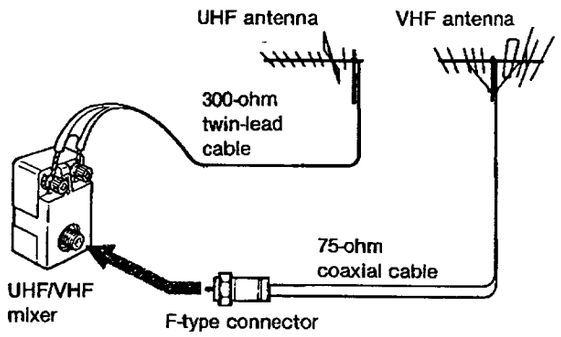


IEC antenna connector

2 Plug the connector into the (antenna) socket.

To connect both VHF and UHF antennas

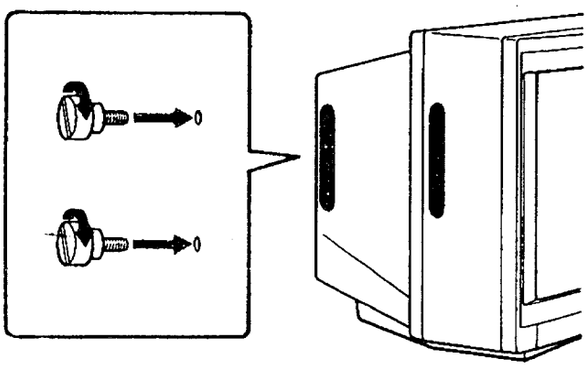
1 Attach the antenna ends to the supplied UHF/VHF mixer.



2 Plug the mixer into the (antenna) socket.

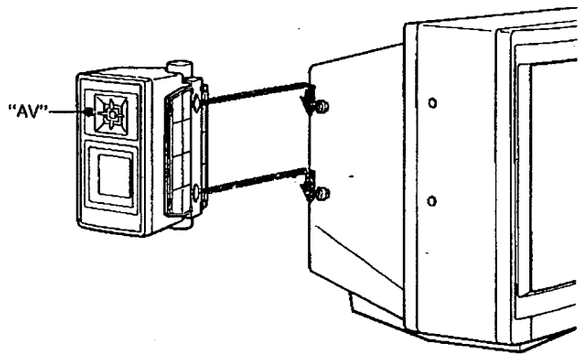
SPEAKER CONNECTION

1 Select either of two positions and insert and tighten the mounting screws.*



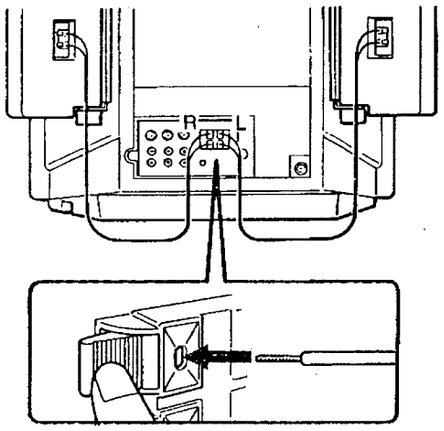
*The speaker mounting screws are attached to the rear panel of the TV.

2 Attach the right and left speakers.
The red "AV" label should be right side up.

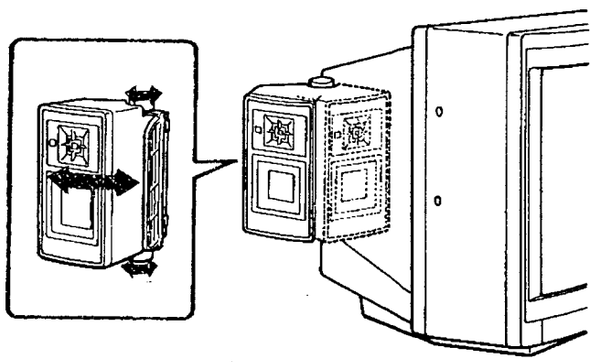


3 Connect the speakers to the SPEAKER terminals using the speaker cords.

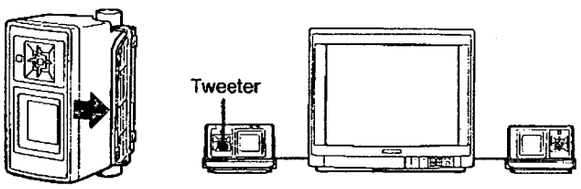
The cord with a red line	to ⊕ red terminal
The unmarked cord	to ⊖ black terminal



4 Adjust the angle of the speakers for the best sound reproduction. Turn the top and bottom knobs counterclockwise, adjust the angle and then turn the knobs clockwise to lock the speaker in positon.



If desired, the supplied speakers can be positioned away from the unit.
Connect the right speaker to the SPEAKER-L terminals and place it to the left of the unit. Connect the left speaker to the SPEAKER-R terminals and place it to the right of the unit. With the tweeters thus positioned on the outside as illustrated, the optimum sound can be obtained.

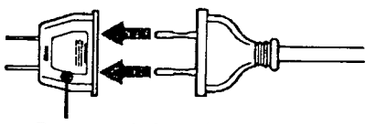


Notes

- If you connect larger speakers, they must be rated at 8-ohm impedance with normal power handling capacity of more than 10 W.
- Make sure that none of the speaker wire strands stick out, making contact with the neighboring speaker terminals.
- If you have connected speakers that are not shielded, place them at a distance away from the unit so that it will not be affected by the speaker magnets.
  If portions of the picture have poor color because of a temporary proximity to magnets, turn the power off, wait about 10 minutes and turn it on again.

POWER CONNECTION

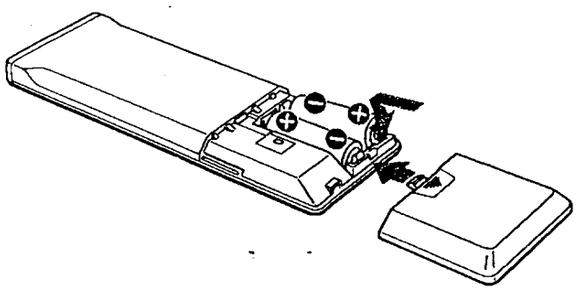
Plug the power cord into the wall outlet after antenna connections have been completed. If the plug does not fit into the wall outlet, use the supplied power cord plug adaptor.



Power cord plug adaptor

REMOTE COMMANDER

Battery installation
Insert two IEC designation R6 batteries checking the correct polarity.



Notes

- In normal operation, batteries will last up to half a year. If the unit does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the TV.
- Operable range is limited.

PRESETTING CHANNELS

Once a channel has been preset, it appears on the screen simply by pressing the corresponding program number button. There are two ways of presetting as follows:

Automatic presetting—the basic way
All receivable channels are automatically tuned in and memorized in consecutive program numbers.

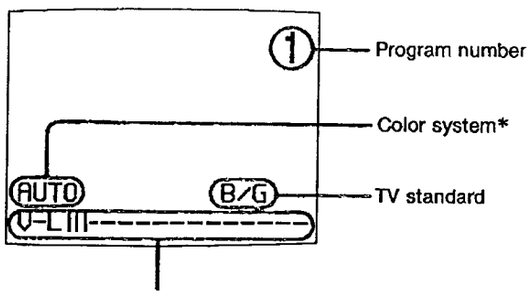
Manual presetting
Use to preset a receivable channel in any desired program number, e.g. the same number as the channel.

Preparations

1 Press ⏻ to turn on the TV.
If "⊡1", "⊡2" or "⊡3" appears on the screen, press TV/VIDEO so that the program number appears.

2 Open the front panel to expose the buttons used for presetting.

On-screen display during presetting



Indicates the approximate location in the band of the channel being tuned in.
"V-L": low VHF band, "V-H": high VHF band, "UHF": UHF band
The number of upright segments increases for a higher-frequency channel.

Each time TV STANDARD is pressed, the following indications appear in this order:
B/G: West European TV standard
I: British TV standard
M: American TV standard

* The available color system is selected automatically.

Automatic presetting

1 Press PROGR +/– to select program number 1.

2 Press PRESET.

3 Press TV STANDARD to select the available TV standard.

4 Press AUTO.

All available channels are preset in program numbers 1 through 29, and 0 (meaning 30). The operation is completed when program number 1 reappears.

To preset channels of another TV standard
Select the program number from which preset is to begin in the step 1 above and follow the steps 2 to 4. All available channels are preset in the consecutive program numbers.

Manual presetting

1 Press PROGR +/– to select the desired program number.

2 Press PRESET.

3 Press TV STANDARD to select the available TV standard.

4 Press CLEAR.

5 Press MANUAL +/– repeatedly until the desired channel appears.
+: to scan channels from the VHF lowest frequency toward higher frequencies
–: to scan channels from the UHF highest frequency toward lower frequencies

6 Press PRESET again.

Repeat steps 1 to 6 for other desired channels.

Skipping program numbers

To have unused or undesired program numbers skipped when PROGR +/– is pressed, follow the steps below.

1 Press PROGR +/– to select the number to be skipped.

2 Press PRESET.

3 Press CLEAR.

4 Press PRESET again.

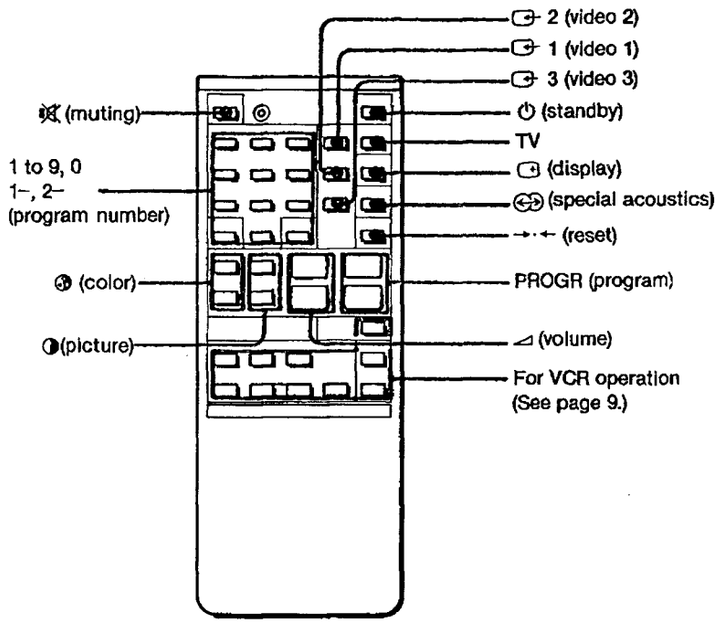
Repeat steps 1 to 4 for other numbers to be skipped.

Fine tuning a weak channel

Normally press AFT so that the ON indicator lights up. In this position, the AFT circuit automatically fine tunes the channels for the best possible picture.
However, if the picture of a particular channel is not acceptable, it can be fine tuned manually. Keep FINE TUNING +/– pressed until the picture is clearest.
When FINE TUNING is pressed, the ON indicator goes off and the AFT circuit does not function on the selected channel.
To restore the AFT circuit on this channel, press AFT so that the indicator lights up.

OPERATION

Usually the Remote Commander is all that is needed to watch the TV.



1 Press ⏻ on the TV to turn on the power.

2 Select the desired channel.
e.g. To select program 15,
press "1–" and then "5".
To select program 25,
press "2–" and then "5".
To scan the programs,
press PROGR +/–.

3 Press ◿ to adjust the volume.

To turn off the TV
Press ⏻. The ⏻ indicator lights up and the unit changes to the standby mode.
Press this button to turn off the unit for short periods of time.
To turn on the TV from the standby mode, press TV or the program number.
To cut off the mains power completely, press ⏻ on the unit.

To mute the sound immediately
Press . " " appears on the screen.
Press again to restore the sound.

To keep the on-screen indications displayed
Press .
Press again to make them disappear.

To obtain special acoustic effects
Press . The indicator lights up.
Press again to restore the normal sound.

Automatic shut off
Even if the TV is left on after you have gone to sleep, the unit changes to the standby mode within 10 minutes after all broadcasts have ended.

Note on the TV standard
Normally, the color system is selected automatically. If the sound is distorted, set TV STANDARD to the standard which produces clear sound.

Picture and sound adjustments

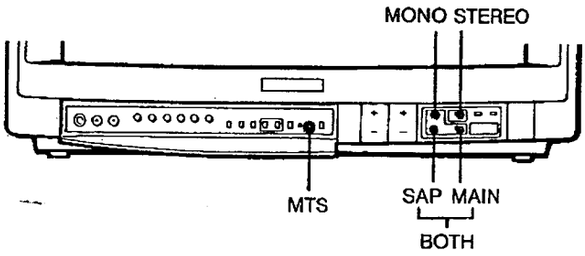
	To adjust ...	Press ... on the Commander
Picture	color intensity	
	picture contrast	

	To adjust ...	Adjust ... inside the front panel
Picture	sharpness	SHARP
	brightness	☼ BRIGHT
	hue (NTSC color system only)	HUE (NTSC)
Sound	balance	BALANCE
	bass	BASS
	treble	TREBLE

To reset the color intensity and picture contrast to factory-set levels, press →·← on the Commander.
If the picture rolls up and down, adjust V HOLD on the rear of the unit.

Listening to American Multichannel TV Sound (MTS) broadcasts

MTS broadcasts can be heard only on channels based on the NTSC 3.58 M TV system.



To receive a stereo broadcast
The STEREO lamp lights whenever a stereo broadcast is received if MTS is not set to MONO. To listen to the stereo sound, press MTS so that only the MAIN indicator lights.

To listen to a Second Audio Program (SAP) broadcast
Press MTS so that only the SAP indicator lights.

To listen to both MAIN and SAP broadcasts
Press MTS so that both the MAIN and SAP indicators light (BOTH mode). The MAIN and SAP sounds are emitted from the left and right speakers respectively. The MAIN sound becomes monaural even if it is a stereo broadcast.

Each time MTS is pressed, the following indicators light in this order.

MONO → MAIN → SAP → BOTH (MAIN and SAP)

Notes

- Excessive noise may be heard during a stereo broadcast as a result of weak signals. In this case, press MTS so that the MONO indicator lights. The sound becomes monaural but the noise should be eliminated. After listening to that particular program, press MTS so that the MAIN indicator lights for other stereo broadcast reception.
- The selected MTS mode is recalled when that channel is tuned in later even if the power is once turned off. If the SAP mode is selected when in fact there is no SAP broadcast, no sound is heard.

CONNECTING OTHER EQUIPMENT

Input jacks

VIDEO-1	Connect to the video and audio outputs of a VCR, video disc player, etc. Tapes and discs can be played back. The VIDEO-3 input inside the front panel provides easy hook-up to portable VCRs. To watch the input picture, press ⊡-1, ⊡- 2 or ⊡-3 as required. To return to the TV mode, press TV.
VIDEO-2	
VIDEO-3	

Output jacks

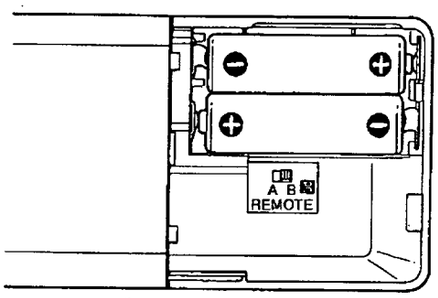
MONITOR OUT	Connect to the video and audio inputs of a VCR. The TV picture or input picture displayed on the screen and the sound heard from the speakers can be recorded.

Note

Move the connected equipment away from the TV, if the picture or sound is distorted.

VCR operation using the supplied Commander

To control a Sony 8mm VCR, set the switch inside the battery compartment to B. To control other Sony VCRs, set it to A.



Buttons for VCR operation

VIDEO POWER	to turn on the VCR
PROGR +/–	to select the program on the VCR
◀◀	Rewind
▶	Playback
▶▶	Fast-forward
■	Stop
● REC	Recording Press the two buttons simultaneously.
❚❚	Pause

Remote operation of the VCR is limited to the features and functions of the VCR. For further details refer to the VCR manual.

SPECIFICATIONS

Television standard	CCIR system B/G and H	CCIR system I	EIA system M
Color system	European PAL	UK PAL	American NTSC
Channel coverage			
Low VHF band	VHF: E2–E4 Cable TV: S1–S3, M1	—	VHF: A2–A6, J1–J3
High VHF band	VHF: E5–E12 Cable TV: M2–M10, U11–U20	—	VHF: A7–A13, J4–J12 Cable TV: A-8 to W
UHF	E21–E68	B21–B68	A14–A78, J13–J62

Picture tube

KV-21VX1P	KV-27VX1P/27VX1PH
21-inch (approx. 55 cm) Trinitron tube (approx. 51 cm picture measured diagonally) 100-degree deflection	27-inch (approx. 68 cm) Trinitron tube (approx. 64 cm picture measured diagonally) 114-degree deflection

Peak music power output
140 W

Inputs
VIDEO-1, -2, -3
VIDEO:
BNC connector, 1 Vp-p, 75 ohm
AUDIO:
phono jack, –5 dBs, high impedance

Output
MONITOR OUT
VIDEO:
BNC connector, 1 Vp-p, 75 ohm
AUDIO:
phono jack, –5 dBs, low impedance

Power requirements
110–240 V AC, 50/60 Hz

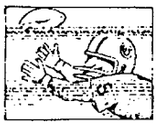
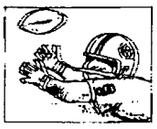
	KV-21VX1P	KV-27VX1P/27VX1PH
Power consumption	135 W	165 W
Dimensions	520 × 454 × 470 mm (w/h/d) (20 3/4 × 17 7/8 × 18 5/8 inches)	636 × 563 × 471.5 mm (w/h/d) (25 1/2 × 22 1/4 × 18 5/8 inches)
Weight	25 kg (55 lb 3 oz)	42 kg (99 lb 4 oz)

Accessories supplied
Speakers (1 pair)
Remote Commander RM-646 with 2 IEC designation R6 batteries (1)
UHF/VHF mixer EAC-53 (1)
Power cord plug adaptor (1)
BNC connector (1)

Design and specifications are subject to change without notice.

TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below. If the problem still cannot be solved, contact your nearest service facility.

SYMPTOM	CORRECTION
No picture (screen not lit), no sound	• Plug the unit into a working outlet. • Press ⏻ on the TV. • Press TV on the Commander. • Check the antenna.
Poor or no picture (screen not lit) but good sound	• Turn ☼ on the TV clockwise. • Press ◑ + or ⊕ +. • Press →·←.
Good picture but no sound	• Press ◿ +. • If " 🔇 " is displayed on the screen, press 🔇 . • Check the MTS setting (NTSC only).
No color for color programs	Press ⊕ +.
Snow and noise	• Fine tune the channel manually. • Check the antenna. • Check the TV STANDARD setting.
Dotted lines or stripes 	This may be caused by local interference (e.g. cars, neon signs, hairdryers, etc.). Adjust the antenna for minimum interference.
Double images or "ghosts" 	This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.